



### ■ Absolute Maximum Ratings

Ta = 25°C

|                      |      | Red       | Green     | Orange    | Unit  |
|----------------------|------|-----------|-----------|-----------|-------|
|                      |      | NAR / NKR | NAG / NKG | NAA / NKA |       |
| Power Dissipation    | Pb   | 120       | 126       | 126       | mW    |
| Forward Current      | IF   | 30        | 25        | 25        | mA    |
| Peak Forward Current | IFM  | 120       | 100       | 100       | mA    |
| Reverse Voltage      | VR   | 8         | 8         | 8         | V     |
| Operating Temp.      | Topr | -20~+85   | -20~+85   | -20~+85   | °C    |
| Storage Temp.        | Tstg | -20~+85   | -20~+85   | -20~+85   | °C    |
| Derating *           | ΔIF  | 0.41      | 0.34      | 0.34      | mA/°C |

\* The current derating for operation applies when temperature is above 25°C.

• IFM Condition : tw ≤ 1msec, Duty ≤ 1/20

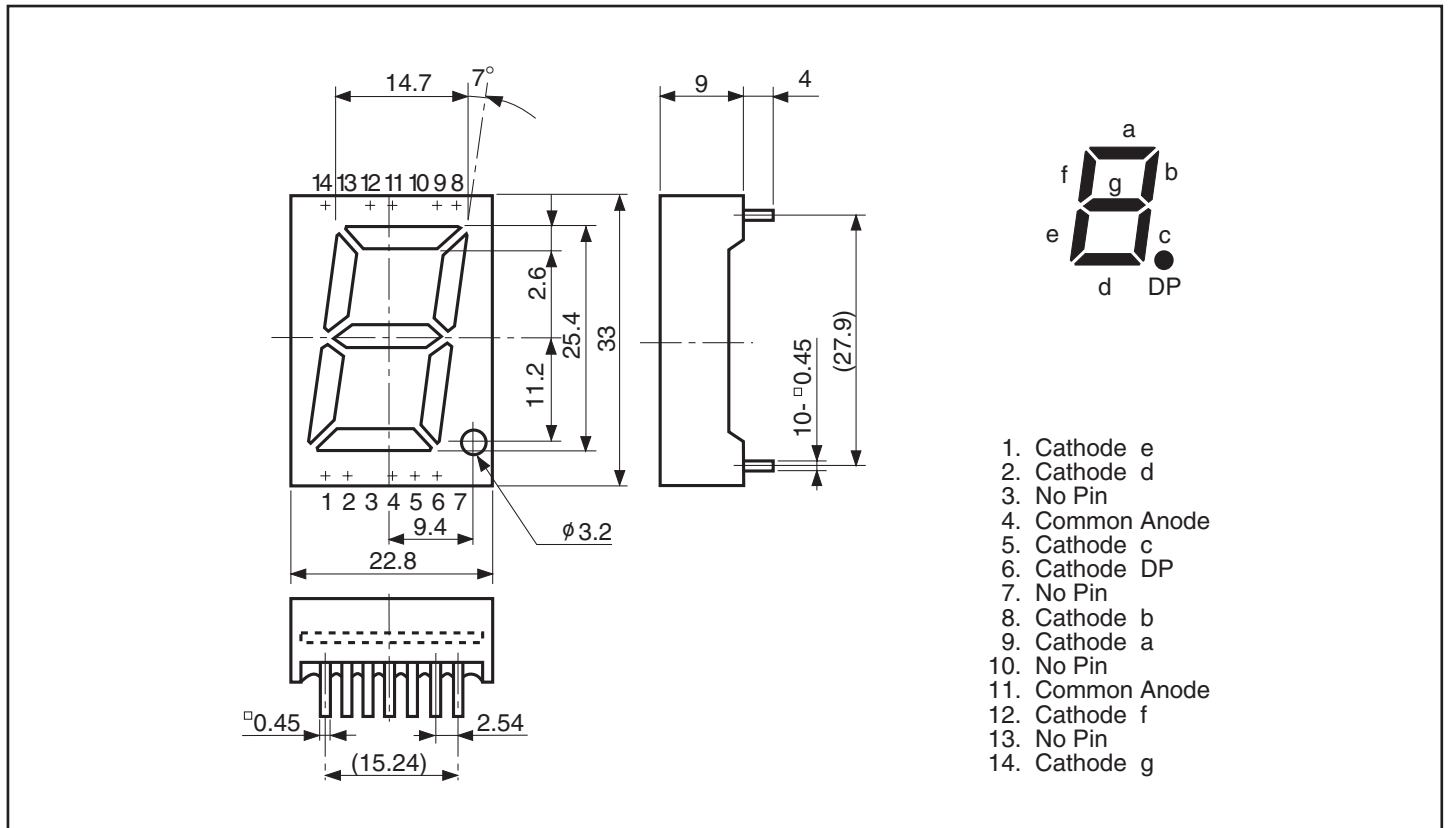
### ■ Electro-Optical Characteristics

Ta = 25°C

| Part No.     |                | Case Color | Chip     |               | Luminous Intensity Iv |     |        |     |    | Wavelength λp |    | Forward Voltage VF |     |    | Reverse Current IR |    |
|--------------|----------------|------------|----------|---------------|-----------------------|-----|--------|-----|----|---------------|----|--------------------|-----|----|--------------------|----|
| Anode Common | Cathode Common |            | Material | Emitted Color | Rank B                |     | Rank C |     | IF | TYP           | IF | TYP                | MAX | IF | MAX                | VR |
| NAR105       | NKR105         | Black      | GaAlAs   | Red           | 10                    | 20  | 20     | 25  | 20 | 660           | 20 | 3.4                | 4.0 | 20 | 100                | 8  |
| NAR107       | NKR107         | Gray       |          |               | MIN                   | TYP | MIN    | TYP | IF | TYP           | IF | TYP                | MAX | IF | MAX                | VR |
| NAG105P      | NKG105P        | Black      | GaP      | Green         | 4                     | 8   | —      | —   | 20 | 565           | 20 | 4.4                | 5.0 | 20 | 100                | 8  |
| NAG107P      | NKG107P        | Gray       |          |               | MIN                   | TYP | MIN    | TYP | IF | TYP           | IF | TYP                | MAX | IF | MAX                | VR |
| NAA105       | NKA105         | Black      | GaAsP    | Orange        | 8                     | 16  | —      | —   | 20 | 605           | 20 | 4.4                | 5.0 | 20 | 100                | 8  |
| NAA107       | NKA107         | Gray       |          |               | MIN                   | TYP | MIN    | TYP | IF | TYP           | IF | TYP                | MAX | IF | MAX                | VR |
| Units        |                |            |          |               | mcd                   | mcd | mcd    | mcd | mA | nm            | mA | V                  | V   | mA | μA                 | V  |

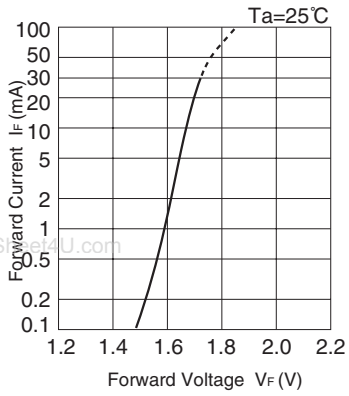
### ■ Package Dimensions

Unit : mm

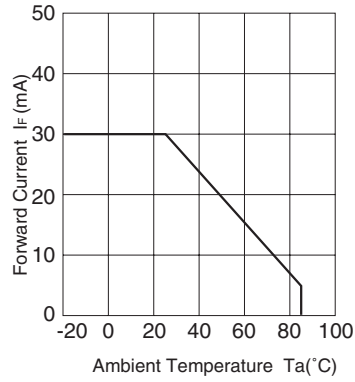


Tolerance : ± 0.25mm

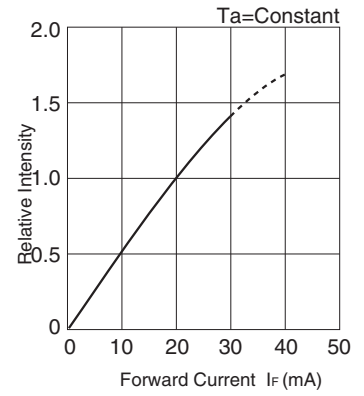
■ Forward Voltage vs. Forward Current



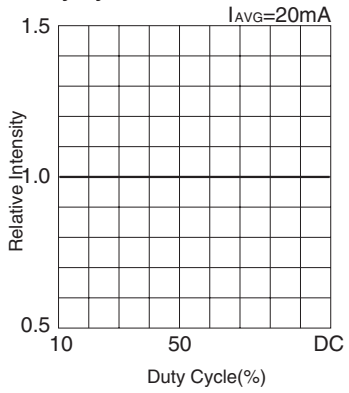
■ Ambient Temperature vs. Maximum Forward Current



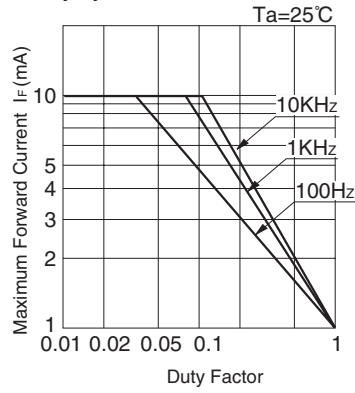
■ Forward Current vs. Relative Intensity



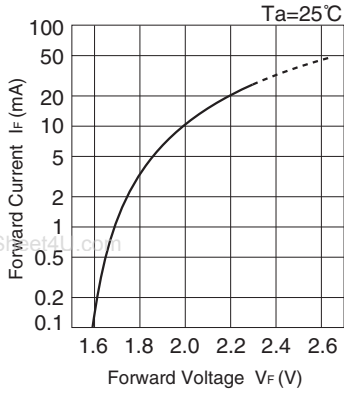
■ Duty Cycle vs. Relative Intensity



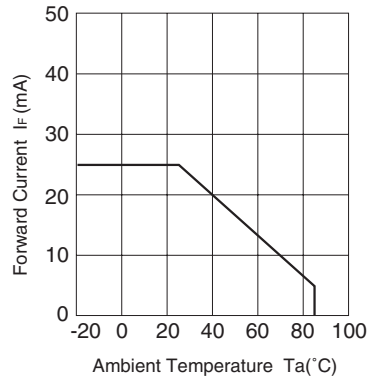
■ Duty Cycle vs. Maximum Forward Current



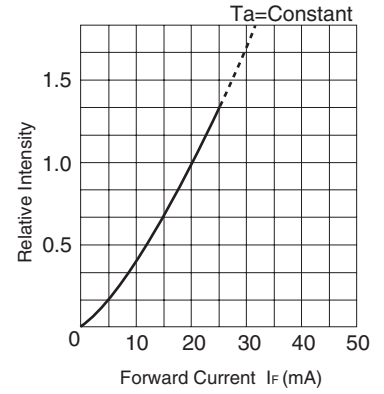
■ Forward Voltage vs. Forward Current



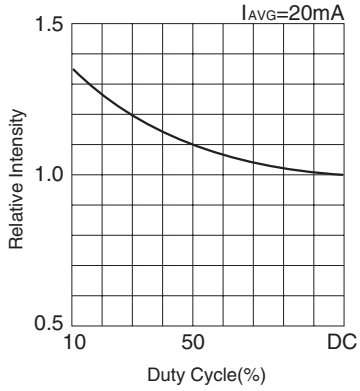
■ Ambient Temperature vs. Maximum Forward Current



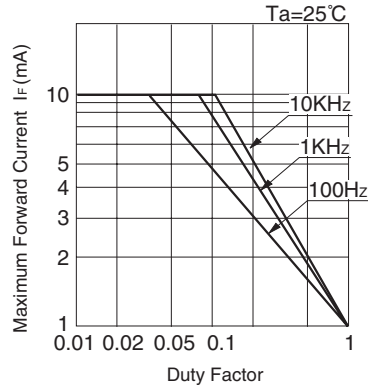
■ Forward Current vs. Relative Intensity



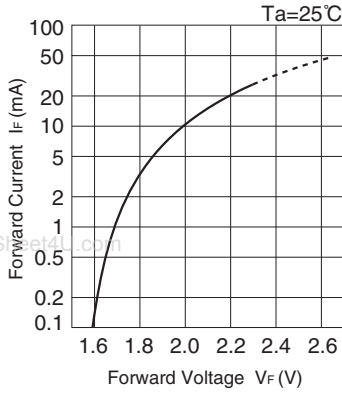
■ Duty Cycle vs. Relative Intensity



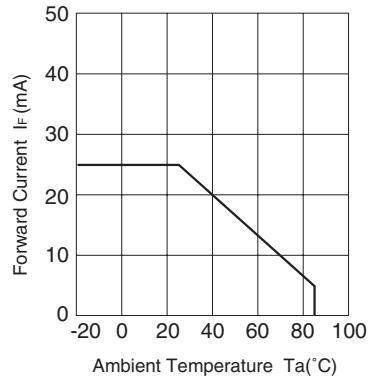
■ Duty Cycle vs. Maximum Forward Current



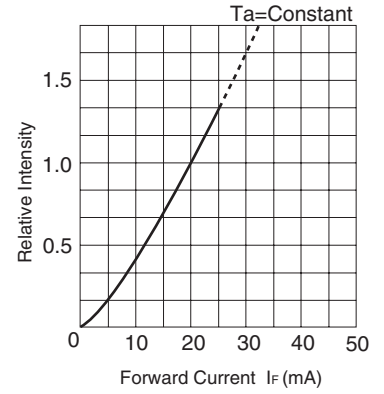
■ Forward Voltage vs. Forward Current



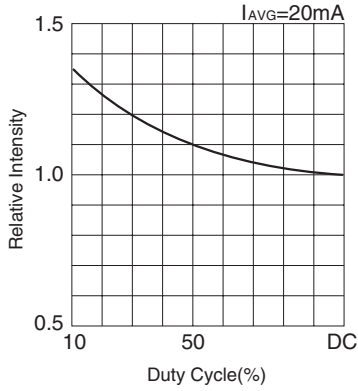
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Current vs. Relative Intensity



■ Duty Cycle vs. Relative Intensity



■ Duty Cycle vs. Maximum Forward Current

